GenCore version 5.1.4_p5_4578

OM nucleic - nucleic search, using sw model

Run on: March 30, 2003, 00:35:07 ; Search time 242.403 Seconds
(without alignments)
12904.233 Million cell updates/sec

Title: US-09-768-781-2
Perfect score: 1389
Sequence: 1 atgaacacaagaccacaaca.....caaggcaaagtgttgtctga 1389

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 2185239 seqs, 1125999159 residues

Total number of hits satisfying chosen parameters: 4370478

Minimum DB seq length: 0
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Post-processing: Minimum Match 0%
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Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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	1	526.8	37.9	532	24	ABL89709	Human polynucleoti
	2	515.4	37.1	531	23	ABK41708	cDNA encoding nove
	3	291.2	21.0	5096	24	ABL64686	Stomach cancer rel
	4	283.6	20.4	5215	24	ABN59695	Novel human coding
	5	272.2	19.6	668	22	ABA46582	Human breast cell
	6	272.2	19.6	668	22	ABA64445	Human foetal liver
	7	272.2	19.6	668	22	ABA31582	Probe #10048 for g
	8	272.2	19.6	668	22	AAK12903	Human brain expres
	9	272.2	19.6	668	22	AAK38630	Human bone marrow
	10	272.2	19.6	668	22	AAI19430	Probe #9363 for ge
	11	272.2	19.6	668	22	AAI44621	Probe #13307 used
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	13	272.2	19.6	668	24	ABS12699	Human genome-deriv
	14	176.8	12.7	471	22	ABA51767	Human foetal liver
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	16	176.8	12.7	471	22	AAK00075	Human brain expres
	17	176.8	12.7	471	22	AAK25512	Human bone marrow
	18	176.8	12.7	471	22	AAI10135	Probe #68 for gene
	19	176.8	12.7	471	22	AAI31384	Probe #70 used to
	20	176.8	12.7	471	22	AAI00076	Probe #67 used to
	21	176.8	12.7	471	24	ABS00080	Human genome-deriv
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c	23	162	11.7	384	22	ABA36103	Probe #14569 for g
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	25	161.8	11.6	626	22	AAF93700	cDNA encoding SRT
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	28	73.2	5.3	294	22	ABA48894	Human breast cell
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	37	65	4.7	477	22	ABA43790	Human breast cell
	38	65	4.7	477	22	ABA54250	Human foetal liver
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	41	65	4.7	477	22	AAK27964	Human bone marrow
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ALIGNMENTS

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ABL89709
ID ABL89709 standard; cDNA; 532 BP.
XX
AC ABL89709;
XX
DT 24-MAY-2002 (first entry)
XX
DE Human polynucleotide SEQ ID NO 271.
XX
KW Cytostatic; immunosuppressive; nootropic; neuroprotective; antiviral;
KW antiallergic; hepatotropic; antidiabetic; antiinflammatory; antiulcer;
KW vulnerary; anticonvulsant; antibacterial; antifungal; antiparasitic;
KW cardiant; gene therapy; cancer; immune disorder; cardiovascular disorder;
KW neurological disease; infection; human; secreted protein; gene; ss.
XX
OS Homo sapiens.
XX
PN WO200190304-A2.
XX
PD 29-NOV-2001.
XX
PF 18-MAY-2001; 2001WO-US16450.
XX
PR 19-MAY-2000; 2000US-205515P.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Birse CE, Rosen CA;
XX
DR WPI; 2002-122018/16.
DR P-PSDB; ABB89300.

XX
PT Novel 1405 isolated polypeptides, useful for diagnosis, treatment and
PT prevention of neural, immune system, muscular, reproductive,
PT gastrointestinal, pulmonary, cardiovascular, renal and proliferative
PT disorders -
XX
PS Claim 4; SEQ ID NO 271; 2081pp + Sequence Listing; English.
XX
CC The invention relates to novel genes (ABL89449-ABL90853) and proteins
CC (ABB89040-ABB90444) useful for preventing, treating or ameliorating
CC medical conditions e.g. by protein or gene therapy. The genes are
CC isolated from a range of human tissues disclosed in the specification.
CC The nucleic acids, proteins, antibodies and (ant)agonists are useful
CC in the diagnosis, treatment and prevention of: (a) cancer, e.g. breast
CC and ovarian cancer and other cancers of the adrenal gland, bone, bone
CC marrow, breast, gastrointestinal tract, liver, lung, or urogenital;
CC (b) immune disorders e.g. Addison's disease, allergies, autoimmune
CC haemolytic anaemia, autoimmune thyroiditis, diabetes mellitus, Crohn's
CC disease, multiple sclerosis, rheumatoid arthritis and ulcerative
CC colitis; (c) cardiovascular disorders such as myocardial ischaemias;
CC (d) wound healing; (e) neurological diseases e.g. cerebral anoxia and
CC epilepsy; and (f) infectious diseases such as viral, bacterial, fungal
CC and parasitic infections.
CC Note: The sequence data for this patent did not form part of the
CC printed specification, but was obtained in electronic format directly
CC from WIPO at ftp.wipo.int/pub/published_pct_sequences.
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SQ Sequence 532 BP; 109 A; 129 C; 121 G; 168 T; 5 other;

Query Match 37.9%; Score 526.8; DB 24; Length 532;
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AC ABK41708;
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DT 21-MAY-2002 (first entry)
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KW Human; connective tissue related disorder; cancer; gene therapy;
KW cytostatic; gene; ss.
XX
OS Homo sapiens.
XX
PN WO200155343-A1.
XX
PD 02-AUG-2001.
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PF 17-JAN-2001; 2001WO-US01322.
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PR 31-JAN-2000; 2000US-0179065.
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PR 05-JAN-2001; 2001US-0259678.
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PA (HUMA-) HUMAN GENOME SCI INC.
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PI Rosen CA, Barash SC, Ruben SM;
XX
DR WPI; 2001-565190/63.
DR P-PSDB; AAU86530.
XX
PT Nucleic acid encoding novel connective tissue associated polypeptides,
PT used in diagnosing, preventing, treating or ameliorating a disorder
PT such as cancer or rheumatoid arthritis -
XX
PS Claim 4; SEQ ID No 106; 673pp; English.
XX
CC The present invention relates to the isolation of novel human connective
CC tissue related polypeptides (AAU86435-AAU86923) and the polynucleotide
CC (cDNA and genomic) sequences encoding them. The sequences of the
CC invention are useful in the diagnosis, treatment, prevention and/or
CC prognosis of diseases associated with connective tissue(s), including
CC cancer. The polynucleotide sequences of the invention are also useful
CC in gene therapy. ABK41613-ABK42101 represent cDNA sequences encoding
CC the novel human connective tissue related polypeptides.
CC Note: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences.
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SQ Sequence 531 BP; 109 A; 128 C; 121 G; 168 T; 5 other;

Query Match 37.1%; Score 515.4; DB 23; Length 531;
Best Local Similarity 98.7%; Pred. No. 1.6e-147;
Matches 524; Conservative 5; Mismatches 1; Indels 1; Gaps 1;

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Db      2 GGAGATCACTTCCCGCCTCCTGATTCTGGTGCTCTTCTCAGCCACTTTGAAATTGAAGGC 61

Qy    846 TGTGCCCTTCCTAGTGCTCAACTTCCTGATCATCCTCTTTGAGCCCTGGATTAAGTTCTG 905
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Db     62 TGTGCCCTTCCTAGTGCTCAACTTCCTGATCATCCTCTTTGAGCCCTGGATTAAGTTCTG 121

Qy    906 GAGAAGTGGTGCCCAGATGCCCAATAACATTGAGAAAAACTTCAGCCGGGTCGGCACTCT 965
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Qy    966 GGTGGTCCTGATTTCAGTCACCATCCTCTATGCTGGCATCAACTTCTCTTGCTGGTCAGC 1025
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RESULT 3
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ID   ABL64686 standard; DNA; 5096 BP.
XX
AC   ABL64686;
XX
DT   15-MAY-2002  (first entry)
XX
DE   Stomach cancer related gene sequence SEQ ID NO:3023.
XX
KW   Human; cancer; colon; breast; ovary; oesophagus; kidney; thyroid;
KW   stomach; lung; prostate; pancreas; carcinoma; antitumour; cancerous;
KW   cytostatic; gene therapy; antineoplastic; Wilm's tumour; adenocarcinoma;
KW   gene; ds.
XX
OS   Homo sapiens.
XX
PN   WO200194629-A2.
XX
PD   13-DEC-2001.
XX
PF   30-MAY-2001; 2001WO-US10838.
XX
PR   05-JUN-2000; 2000US-209473P.
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PR   26-SEP-2000; 2000US-235638P.
PR   27-SEP-2000; 2000US-235711P.
PR   27-SEP-2000; 2000US-235720P.
PR   27-SEP-2000; 2000US-235840P.
PR   27-SEP-2000; 2000US-235863P.
PR   28-SEP-2000; 2000US-236028P.
PR   28-SEP-2000; 2000US-236032P.
PR   28-SEP-2000; 2000US-236033P.
PR   28-SEP-2000; 2000US-236034P.
PR   28-SEP-2000; 2000US-236109P.
PR   28-SEP-2000; 2000US-236111P.
PR   29-SEP-2000; 2000US-236842P.
PR   29-SEP-2000; 2000US-236891P.
PR   02-OCT-2000; 2000US-237172P.
PR   02-OCT-2000; 2000US-237173P.
PR   02-OCT-2000; 2000US-237278P.
PR   02-OCT-2000; 2000US-237294P.
PR   02-OCT-2000; 2000US-237295P.
PR   02-OCT-2000; 2000US-237316P.
PR   03-OCT-2000; 2000US-237425P.
PR   03-OCT-2000; 2000US-237598P.
PR   03-OCT-2000; 2000US-237604P.
PR   03-OCT-2000; 2000US-237606P.
PR   03-OCT-2000; 2000US-237608P.
PR   01-NOV-2000; 2000US-244867P.
PR   01-NOV-2000; 2000US-245084P.
XX
PA   (AVAL-) AVALON PHARM.
XX
PI   Young PE,  Augustus M,  Carter KC,  Ebner R,  Endress G,  Horrigan S;
PI   Soppet DR,  Weaver Z;
XX
DR   WPI; 2002-188264/24.
XX
PT   Screening for anti-neoplastic agent involves exposing cells to a
PT   chemical agent to be tested for anti-neoplastic activity, and
PT   determining a change in expression of a gene of a signature gene set  -
XX
PS   Claim 1; SEQ ID 3023; 44pp; English.
XX
CC   The present invention describes a method (M1) for screening for an
CC   anti-neoplastic agent. The method involves exposing cells to a chemical
CC   agent to be tested for anti-neoplastic activity, determining a change in
CC   expression of at least one gene (I) of a signature gene set, where (I)
CC   comprises a sequence (S) selected from 8447 sequences (given in ABL61664
CC   to ABL70110), or is at least 95% identical to (S), where a change in
CC   expression is indicative of anti-neoplastic activity. (I) has cytostatic
CC   activity and can be used in gene therapy. M1 can be used for screening
CC   an anti-neoplastic agent, and can be used for producing a product which
CC   is the data collected with respect to the anti-neoplastic agent as a
CC   result of M1, and the data is sufficient to convey the chemical
CC   structure and/or properties of the agent. M1 can be used in the
CC   treatment of cancer such as colon, breast, stomach, lung, thyroid,
CC   oesophageal, ovarian, kidney, prostate or pancreatic cancer,
CC   adenocarcinoma, carcinoma, clear cell cancer, infiltrating ductal cancer,
CC   infiltrating lobular cancer, squamous cell carcinoma, neuroendocrine
CC   carcinoma, papillary carcinoma and Wilm's tumour.
XX
SQ   Sequence 5096 BP; 1392 A; 1064 C; 1022 G; 1618 T; 0 other;

  Query Match           21.0%;  Score 291.2;  DB 24;  Length 5096;
  Best Local Similarity  54.7%;  Pred. No. 4.1e-78;
  Matches  628;  Conservative    0;  Mismatches  508;  Indels   12;  Gaps    2;

Qy    157 TCCACCTTTTTGTACTGTGGGGAGGCTGCATCTGCTTTGTACATGGTTAGAATCTATCGA 216
          |||   ||  ||| |   |  ||| |  |  | ||  |   | ||   || | ||| ||
Db    110 TCCGTGTTCCTGTTCGTGGCCGAGACAACGGCGGCGCTCAGCCTGAGCAGCACCTACCGC 169

Qy    217 AAGAATAGTGAAACTTACTGGATGACATACACCTTTTCTTTCTTTATGTTTTCATCCATT 276
            |   | ||       ||| | |    || ||  |||||  |  |  | | |
Db    170 TCGGGCGGGGACCGCATGTGGCAGGCGCTGACGTTGCTTTTCTCGCTACTGCCTTGCGCG 229

Qy    277 ATGGTCCAGTTGACCCTCATTTTTGTCCACAGAGATCTAGCCAAAGATAAACCGCTATCA 336
          | || ||| | || ||  | || ||| | || ||   |   ||    |||||   |
Db    230 CTCGTGCAGCTCACGCTTCTCTTCGTACACCGCGACCTCAGCCGCGACCGCCCGCTCGTA 289

Qy    337 TTATTTATGCATCTAATCCTCTTGGGACCTGTTATCAGATGTTTGGAGGCCATGATTAAG 396
            |  |  |||| ||  | |   | || ||  || |||| ||||| || | | |    |
Db    290 CTGCTGCTGCACCTGCTGCAACTTGGGCCCCTTTTCAGGTGTTTTGAAGTCTTCTGCATC 349

Qy    397 TACCTCACACTGTGGAAGAAAGAGGAGCAGGAGGAGCCCTATGTCAGCCTCACCCGAAAG 456
          |||  |           ||  ||   |  | || ||||| ||||||||  |||||   |||
Db    350 TACTTTC---------AGTCAGGCAACAATGAAGAGCCTTATGTCAGTATCACCAAGAAG 400

Qy    457 AAG---ATGCTAATAGATGGCGAGGAGGTGCTGATAGAATGGGAGGTGGGCCACTCCATC 513
          | |   |||| || | |||||       | |  ||| ||   ||||||||||||  |
Db    401 AGGCAAATGCCAAAAAATGGCCTCTCAGAGGAGATTGAGAAGGAGGTGGGCCAGGCAGAA 460

Qy    514 CGGACCCTGGCTATGCACCGCAATGCCTACAAACGTATGTCACAGATCCAAGCCTTCCTG 573
          | |  ||    | |||||    || | ||  ||   |||   ||||||  || ||| ||
Db    461 GGCAAACTAATCACCCACCGATCAGCGTTCAGCCGGGCGTCGGTGATCCAGGCTTTCTTG 520

Qy    574 GGCTCAGTGCCCCAGCTGACCTATCAGCTCTATGTGAGCCTGATCTCTGCAGAGGTTCCC 633
          |||||||  ||||||||||||    ||||| ||  | ||  | ||        || ||  |
Db    521 GGCTCAGCCCCCCAGCTGACCCTACAGCTGTACATAAGTGTCATGCAGCAGGACGTCACT 580

Qy    634 CTGGGTAGAGTTGTGCTAATGGTATTTTCCCTGGTATCTGTCACCTATGGGGCCACCCTT 693
          | || |||  | | || |||     | ||||| | ||  |    ||||| |||   |
Db    581 GTTGGAAGAAGTCTCCTCATGACCATATCCCTGTTGTCCATTGTGTATGGAGCCTTGCGC 640

Qy    694 TGCAATATGTTGGCTATCCAGATCAAGTACGATGACTACAAGATTCGCCTTGGGCCACTA 753
          ||||| ||  | || ||| | ||||||||||||| ||  |  |     |   ||| ||
Db    641 TGCAACATCCTAGCCATCAAAATCAAGTACGATGAGTATGAAGTCAAAGTGAAGCCTCTG 700
```

```
Qy     754 GAAGTCCTCTGCATCACCATCTGGCGGACATTGGAGATCACTTCCCGCCTCCTGATTCTG 813
           |      |||| ||| | | ||| ||| || |||||  |  | ||  |  |  | |||
Db     701 GCCTATGTCTGTATCTTCCTGTGGAGGAGCTTTGAGATTGCCACTCGAGTTGTAGTCCTG 760

Qy     814 GTGCTCTTCTCAGCCACTTTGAAATTGAAGGCTGTGCCCTTCCTAGTGCTCAACTTCCTG 873
           || |||||  |  |+|    ||||       ||  |||     |  || |  |||||||  |
Db     761 GTCCTCTTTACCTCCGTCCTGAAGACCTGGGTGGTGGTTATAATACTCATCAACTTCTTC 820

Qy     874 ATCATCCTCTTTGAGCCCTGGATTAAGTTCTGGAGAAGTGGTGCCCAGATGCCCAATAAC 933
           |   || ||||  | ||||||||    ||||||  | ||||||  |||   | ||  | |||
Db     821 AGTTTCTTCTTGTACCCCTGGATCCTCTTCTGGTGCAGTGGTTCCCCATTCCCTGAGAAC 880

Qy     934 ATTGAGAAAAACTTCAGCCGGGTCGGCACTCTGGTGGTCCTGATTTCAGTCACCATCCTC 993
           || |||||   | ||||  | || |||||     | || ||     |   | ||  | |||
Db     881 ATAGAGAAGGCCCTCAGTAGAGTGGGCACCACCATTGTACTATGCTTTCTAACTTTACTC 940

Qy     994 TATGCTGGCATCAACTTCTCTTGCTGGTCAGCTTTGCAGTTGAGGTTGGCAGACAGAGAT 1053
           ||| |||| |||||| | |  |||||||| ||| | ||| |||   | |     |   ||
Db     941 TATACTGGTATCAACATGTTCTGCTGGTCTGCTGTACAGCTGAAAATTGACAGCCCTGAC 1000

Qy    1054 CTCGTCGACAAAGGGCAGAACTGGGGACATATGGGCCTGCACTATAGTGTGAGGTTGGTA 1113
           ||| ||  |||    || || |||   ||  |     || | || |   | || ||  |
Db    1001 CTCATCAGCAAGTCCCATAATTGGTACCAGCTACTGGTGTATTACATGATAAGATTCATC 1060

Qy    1114 GAGAATGTGATCATGGTCTTGGTTTTTAAGTTCTTTGGAGTGAAAGTGTTACTGAATTAC 1173
           |||||||  ||| |  || |  | |  | ||          | | |  || ||
Db    1061 GAGAATGCCATCCTCCTCCTCCTGTGGTATCTTTTCAAGACTGACATCTATATGTATGTG 1120

Qy    1174 TGTCATTCCTTGATTGCCTTGCAGCTCATTATTGCTTATCTGATTTCCATTGGCTTCATG 1233
           ||     |  || | | |||||||  | ||||  ||    |  ||||| |||||||
Db    1121 TGCGCACCTCTGTTGGTCCTGCAGCTGCTCATTGGGTACTGCACAGCCATTCTCTTCATG 1180

Qy    1234 CTCCTTTTCTTCCAGTACTTGCATCCATTGCGCTCACTCTTCACCCATAATGTAGTAGAC 1293
           ||  | ||||  |||| ||| || ||  |       |||||  |    | |||    ||
Db    1181 CTTGTATTCTATCAGTTCTTCCACCCTTGCAAAAAGCTCTTTTCTTCCAGTGTTTCTGAA 1240

Qy    1294 TACCTCCA 1301
             | | ||
Db    1241 GGCTTTCA 1248
```

RESULT 4
ABN59695
ID ABN59695 standard; cDNA; 5215 BP.
XX
AC ABN59695;
XX
DT 28-JUN-2002 (first entry)
XX
DE Novel human coding sequence SEQ ID NO: 106.
XX
KW Human; antianaemic; vulnerary; antiinflammatory; immunomodulator;
KW antiinfertility; cerebroprotective; cytostatic; rheumatic; gene therapy;
KW neuroprotective; antiparkinsonian; protein therapy; EST;
KW expressed sequence tag; gene; ss.
XX
OS Homo sapiens.
XX
PN WO200222660-A2.
XX
PD 21-MAR-2002.
XX
PF 10-SEP-2001; 2001WO-US26015.
XX
PR 11-SEP-2000; 2000US-0659671.
XX
PA (HYSE-) HYSEQ INC.
XX
PI Tang YT, Liu C, Zhou P, Asundi V, Zhang J, Zhao QA, Ren F;
PI Xue AJ, Yang Y, Wehrman T, Drmanac RT;
XX
DR WPI; 2002-292408/33.
DR P-PSDB; ABB97282.
XX
PT An isolated polynucleotide for treating diseases associated with its
PT encoded polypeptide such as cancer and multiple sclerosis -
XX
PS Claim 1; SEQ ID NO 106; 509pp; English.
XX
CC The present invention provides the protein and coding sequences of 444
CC novel human proteins. These were isolated from expressed sequences tags
CC (ESTs). They can be used to stimulate cell growth, to regulate
CC haematopoiesis e.g. to treat aplastic anaemia, to help tissue regrowth
CC e.g. in burn treatment, to regulate the immune system e.g. to treat
CC multiple sclerosis, to regulate activin or inhibin e.g. to treat
CC infertility, to regulate haemostasis or thrombolysis e.g. to treat
CC stroke and cancer, to screen for drugs, to treat inflammatory conditions
CC e.g. rheumatoid arthritis, and to treat nervous system disorders e.g.
CC Parkinson's disease. The present sequence is a coding sequence of the
CC invention.
XX
SQ Sequence 5215 BP; 1458 A; 1058 C; 1035 G; 1664 T; 0 other;

Query Match 20.4%; Score 283.6; DB 24; Length 5215;
Best Local Similarity 55.5%; Pred. No. 9e-76;
Matches 594; Conservative 0; Mismatches 464; Indels 12; Gaps 2;

```
Qy     235 TGGATGACATACACCTTTTCTTTCTTTATGTTTTCATCCATTATGGTCCAGTTGACCCTC 294
           |||  | |    || ||   |||||  |  |  | | |    | || ||| | || ||
Db     307 TGGCAGGCGCTGACGTTGCTTTTCTCGCTACTGCCTTGCGCGCTCGTGCAGCTCACGCTT 366

Qy     295 ATTTTTGTCCACAGAGATCTAGCCAAAGATAAACCGCTATCATTATTTATGCATCTAATC 354
           | || || ||| | || ||    |   ||    |||||   | | |  |||| ||  |
Db     367 CTCTTCGTACACCGCGACCTCAGCCGCGACCGCCCGCTCGTACTGCTGCTGCACCTGCTG 426

Qy     355 CTCTTGGGACCTGTTATCAGATGTTTGGAGGCCATGATTAAGTACCTCACACTGTGGAAG 414
           |   | || ||  || |||| ||||| || | | |    |  |||  |           ||
Db     427 CAACTTGGGCCCCTTTTCAGGTGTTTTGAAGTCTTCTGCATCTACTTTC---------AG 477

Qy     415 AAAGAGGAGCAGGAGGAGCCCTATGTCAGCCTCACCCGAAAGAAG---ATGCTAATAGAT 471
             ||   | | || ||||| |||||||  |||||   |||| |   ||||| || | ||
Db     478 TCAGGCAACAATGAAGAGCCTTATGTCAGTATCACCAAGAAGAGGCAAATGCCAAAAAAT 537

Qy     472 GGCGAGGAGGTGCTGATAGAATGGGAGGTGGGCCACTCCATCCGGACCCTGGCTATGCAC 531
           |||    | |  ||| ||   ||||||||||||  |    | |  ||    |  |||
Db     538 GGCCTCTCAGAGGAGATTGAGAAGGAGGTGGGCCAGGCAGAAGGCAAACTAATCACCCAC 597

Qy     532 CGCAATGCCTACAAACGTATGTCACAGATCCAAGCCTTCCTGGGCTCAGTGCCCCAGCTG 591
           ||    || | ||  ||   |||   |||||| || ||| |||||||||  |||||||||
Db     598 CGATCAGCGTTCAGCCGGGCGTCGGTGATCCAGGCTTTCTTGGGCTCAGCCCCCCAGCTG 657

Qy     592 ACCTATCAGCTCTATGTGAGCCTGATCTCTGCAGAGGTTCCCCTGGGTAGAGTTGTGCTA 651
           |||   ||||| ||  | ||  | ||       || ||   |  | || |||  | | ||
Db     658 ACCCTACAGCTGTACATAAGTGTCATGCAGCAGGACGTCACTGTTGGAAGAAGTCTCCTC 717

Qy     652 ATGGTATTTTCCCTGGTATCTGTCACCTATGGGGCCACCCTTTGCAATATGTTGGCTATC 711
           |||    | |||||| | ||  |.   ||||| |||    |  ||||| ||  | || |||
Db     718 ATGACCATATCCCTGTTGTCCATTGTGTATGGAGCCTTGCGCTGCAACATCCTAGCCATC 777

Qy     712 CAGATCAAGTACGATGACTACAAGATTCGCCTTGGGCCACTAGAAGTCCTCTGCATCACC 771
           | ||||||||||||||| ||  |  |      |  ||| || |      |||| |||  |
Db     778 AAAATCAAGTACGATGAGTATGAAGTCAAAGTGAAGCCTCTGGCCTATGTCTGTATCTTC 837

Qy     772 ATCTGGCGGACATTGGAGATCACTTCCCGCCTCCTGATTCTGGTGCTCTTCTCAGCCACT 831
           | ||| |||  || |||||  |  | ||  |  |  | |||||  |||||  |  ||
Db     838 CTGTGGAGGAGCTTTGAGATTGCCACTCGAGTTGTAGTCCTGGTCCTCTTTACCTCCGTC 897

Qy     832 TTGAAATTGAAGGCTGTGCCCTTCCTAGTGCTCAACTTCCTGATCATCCTCTTTGAGCCC 891
           ||||       ||  |||     |  || |  ||||||||  | |   ||  ||||  | |||
Db     898 CTGAAGACCTGGGTGGTGGTTATAATACTCATCAACTTCTTCAGTTTCTTCTTGTACCCC 957

Qy     892 TGGATTAAGTTCTGGAGAAGTGGTGCCCAGATGCCCAATAACATTGAGAAAAACTTCAGC 951
           |||||    |||||| | |||||| |||   | ||  | |||||  |||||    | ||||
Db     958 TGGATCCTCTTCTGGTGCAGTGGTTCCCCATTCCCTGAGAACATAGAGAAGGCCCTCAGT 1017
```

```
Qy     952 CGGGTCGGCACTCTGGTGGTCCTGATTTCAGTCACCATCCTCTATGCTGGCATCAACTTC 1011
           | || |||||     | || ||    |   | ||  | |||||| |||| |||||| |
Db    1018 AGAGTGGGCACCACCATTGTACTATGCTTTCTAACTTTACTCTATACTGGTATCAACATG 1077

Qy    1012 TCTTGCTGGTCAGCTTTGCAGTTGAGGTTGGCAGACAGAGATCTCGTCGACAAAGGGCAG 1071
           |  |||||||| ||| | ||| |||   | |     |   || ||| ||  |||    ||
Db    1078 TTCTGCTGGTCTGCTGTACAGCTGAAAATTGACAGCCCTGACCTCATCAGCAAGTCCCAT 1137

Qy    1072 AACTGGGGACATATGGGCCTGCACTATAGTGTGAGGTTGGTAGAGAATGTGATCATGGTC 1131
           || |||   ||  |     || | || |   | || ||  | |||||||  ||| |  ||
Db    1138 AATTGGTACCAGCTACTGGTGTATTACATGATAAGATTCATCGAGAATGCCATCCTCCTC 1197

Qy    1132 TTGGTTTTTAAGTTCTTTGGAGTGAAAGTGTTACTGAATTACTGTCATTCCTTGATTGCC 1191
           |  | |   |  | ||         | | |   || ||   ||      |  || | | |
Db    1198 CTCCTGTGGTATCTTTTCAAGACTGACATCTATATGTATGTGTGCGCACCTCTGTTGGTC 1257

Qy    1192 TTGCAGCTCATTATTGCTTATCTGATTTCCATTGGCTTCATGCTCCTTTTCTTCCAGTAC 1251
           |||||||  | ||||  ||     |   |||||  |||||||||  | ||||  |||| |
Db    1258 CTGCAGCTGCTCATTGGGTACTGCACAGCCATTCTCTTCATGCTTGTATTCTATCAGTTC 1317

Qy    1252 TTGCATCCATTGCGCTCACTCTTCACCCATAATGTAGTAGACTACCTCCA 1301
           || || || |         |||||  |    | |||    ||   | | ||
Db    1318 TTCCACCCTTGCAAAAAGCTCTTTTCTTCCAGTGTTTCTGAAGGCTTTCA 1367
```

RESULT 5
ABA46582
ID ABA46582 standard; DNA; 668 BP.
XX
AC ABA46582;
XX
DT 01-FEB-2002 (first entry)
XX
DE Human breast cell single exon nucleic acid probe #5277.
XX
KW Human; microarray; single exon probe; gene expression; breast;
KW disease; cancer; ss.
XX
OS Homo sapiens.
XX
PN WO200157271-A2.
XX
PD 09-AUG-2001.
XX
PF 30-JAN-2001; 2001WO-US00662.
XX
PR 04-FEB-2000; 2000US-0180312.
PR 26-MAY-2000; 2000US-0207456.
PR 30-JUN-2000; 2000US-0608408.
PR 03-AUG-2000; 2000US-0632366.
PR 21-SEP-2000; 2000US-0234687.
PR 27-SEP-2000; 2000US-0236359.
PR 04-OCT-2000; 2000GB-0024263.
XX
PA (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI Penn SG, Hanzel DK, Chen W, Rank DR;
XX
DR WPI; 2001-496933/54.
XX
PT New spatially-addressable set of single exon nucleic acid probes,
PT useful for measuring gene expression in sample derived from human
PT breast, comprises number of single exon nucleic acid probes -
XX
PS Claim 4; SEQ ID NO 5277; 327pp + sequence listing; English.
XX
CC The invention relates to a spatially-addressable set of single exon
CC nucleic acid probes for measuring gene expression in a sample derived
CC from human breast and BT 474 cells. The method involves contacting
CC the probes with a collection of detectably labelled nucleic acids
CC derived from mRNA of human breast, and then measuring the label
CC bound to each probe of the microarray. The probes are useful for
CC verifying the expression of regions of genomic DNA predicted to
CC encode proteins. They are useful for gene discovery, and for
CC determining predisposition and/or prognosing breast disease. Gene
CC expression analysis is useful for assessing the toxicity of chemical
CC agents on cells. The microarray of this invention presents a far greater
CC diversity of probes for measuring gene expression, with far less bias
CC than expressed sequence tag microarrays. The method is suitable for
CC rapid production of functional information from genomic sequence. The
CC present sequence is a single exon nucleic acid probe of the invention.
CC Note: The sequence data for this patent did not form part of the
CC printed specification, but was obtained in electronic format directly
CC from WIPO at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 668 BP; 171 A; 136 C; 146 G; 215 T; 0 other;

  Query Match   19.6%; Score 272.2; DB 22; Length 668;
  Best Local Similarity   65.3%; Pred. No. 8.4e-73;
  Matches 400; Conservative   0; Mismatches 213; Indels   0; Gaps   0;

```
Qy     657 ATTTTCCCTGGTATCTGTCACCTATGGGGCCACCCTTTGCAATATGTTGGCTATCCAGAT 716
           |||||||||| |||| || || |||||||||| |  ||||||||  |||| ||||||||
Db       2 ATTTTCCCTGTTATCAGTTACTTATGGGGCCATTCGCTGCAATATACTGGCCATCCAGAT 61

Qy     717 CAAGTACGATGACTACAAGATTCGCCTTGGGCCACTAGAAGTCCTCTGCATCACCATCTG 776
           ||   | |||||    | |||   ||   |||  ||||| || ||||  ||   || ||
Db      62 CAGCAATGATGATACTACCATTAAGCTACCGCCGATAGAATTCTTCTGTGTCGTGATGTG 121

Qy     777 GCGGACATTGGAGATCACTTCCCGCCTCCTGATTCTGGTGCTCTTCTCAGCCACTTTGAA 836
           |||    |||||| | |  || ||  |  ||| |||||    | |||   ||  || ||||
Db     122 GCGTTTTTTGGAGGTTATCTCACGTGTAGTGACTCTGGCATTTTTCATTGCATCTCTGAA 181

Qy     837 ATTGAAGGCTGTGCCCTTCCTAGTGCTCAACTTCCTGATCATCCTCTTTGAGCCCTGGAT 896
           | |||||    | ||| |   |   |  |||  |    |   |      | || |  || ||| |
Db     182 ACTGAAGAGCCTACCCGTTTTGTTAATCATATATTTTGTATCATTGTTGGCACCGTGGCT 241

Qy     897 TAAGTTCTGGAGAAGTGGTGCCCAGATGCCCAATAACATTGAGAAAAACTTCAGCCGGGT 956
           |||| |||| ||||||  || ||  | ||    ||||  || || || | ||    |||
Db     242 GGAGTTTTGGAAAAGTGGAGCTCATCTTCCTGGCAACAAAGAAAATAATTCCAATATGGT 301

Qy     957 CGGCACTCTGGTGGTCCTGATTTCAGTCACCATCCTCTATGCTGGCATCAACTTCTCTTG 1016
           || ||  |  || | ||  | |   ||||  | || |||||||  ||||||||||||  ||
Db     302 GGGTACAGTACTGATGCTTTTCTTGATCACACTGCTATATGCTGCCATCAACTTCTCCTG 361

Qy    1017 CTGGTCAGCTTTGCAGTTGAGGTTGGCAGACAGAGATCTCGTCGACAAAGGGCAGAACTG 1076
           |||||||||  || |  ||  |||| ||||       |  |  | |||     | ||||  ||
Db     362 CTGGTCAGCAGTGAAACTGCAGTTGTCAGATGACAAAATAATTGACGGGAGACAGAGGTG 421

Qy    1077 GGGACATATGGGCCTGCACTATAGTGTGAGGTTGGTAGAGAATGTGATCATGGTCTTGGT 1136
           |||  ||||    ||| ||||| ||  |   |||  |||| |||||||| ||| | |||||
Db     422 GGGCCATAGAATCCTACACTACAGCTTTCAGTTTTTAGAAAATGTGATAATGATATTGGT 481

Qy    1137 TTTTAAGTTCTTTGGAGTGAAAGTGTTACTGAATTACTGTCATTCCTTGATTGCCTTGCA 1196
           |||| ||||||||||| ||||   || |||||||  ||| | ||  || |||||| ||||
Db     482 ATTTAGGTTCTTTGGAGGGAAAACTTTGCTGAATTGTTGTGACTCATTAATTGCCGTGCA 541

Qy    1197 GCTCATTATTGCTTATCTGATTTCCATTGGCTTCATGCTCCTTTTCTTCCAGTACTTGCA 1256
           |||||| ||    || ||  |  ||| |||||| |||||||| ||||  |||| ||| |
Db     542 GCTCATCATAAGCTACCTATTGGCCACTGGCTTTATGCTCCTCTTCTATCAGTATTTGTA 601

Qy    1257 TCCATTGCGCTCA 1269
           |||| ||  |||
Db     602 CCCATGGCAGTCA 614
```

RESULT 6
ABA64445
ID ABA64445 standard; DNA; 668 BP.
XX
AC ABA64445;
XX
DT 01-FEB-2002 (first entry)
XX
DE Human foetal liver single exon nucleic acid probe #12750.
XX

```
KW   Human; foetal liver; gene expression; single exon nucleic acid probe; ss.
XX
OS   Homo sapiens.
XX
PN   WO200157277-A2.
XX
PD   09-AUG-2001.
XX
PF   30-JAN-2001; 2001WO-US00669.
XX
PR   04-FEB-2000; 2000US-0180312.
PR   26-MAY-2000; 2000US-0207456.
PR   30-JUN-2000; 2000US-0608408.
PR   03-AUG-2000; 2000US-0632366.
PR   21-SEP-2000; 2000US-0234687.
PR   27-SEP-2000; 2000US-0236359.
PR   04-OCT-2000; 2000GB-0024263.
XX
PA   (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI   Penn SG,  Hanzel DK,  Chen W,  Rank DR;
XX
DR   WPI; 2001-483447/52.
XX
PT   Human genome-derived single exon nucleic acid probes useful for
PT   analyzing gene expression in human fetal liver -
XX
PS   Claim 4; SEQ ID NO 12750; 639pp + sequence listing; English.
XX
CC   The invention relates to a single exon nucleic acid probe for
CC   measuring human gene expression in a sample derived from human foetal
CC   liver. The single exon nucleic acid probes may be used for predicting,
CC   measuring and displaying gene expression in samples derived from human
CC   fetal liver. The present sequence is a single exon nucleic acid
CC   probe of the invention.
CC   Note: The sequence data for this patent did not form part of the
CC   printed specification, but was obtained in electronic format directly
CC   from WIPO at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 668 BP; 171 A; 136 C; 146 G; 215 T; 0 other;

  Query Match             19.6%;  Score 272.2;  DB 22;  Length 668;
  Best Local Similarity   65.3%;  Pred. No. 8.4e-73;
  Matches  400;  Conservative    0;  Mismatches  213;  Indels    0;  Gaps    0;

Qy     657 ATTTTCCCTGGTATCTGTCACCTATGGGGCCACCCTTTGCAATATGTTGGCTATCCAGAT 716
           ||||||||||  ||||  ||  ||  ||||||||||   |  ||||||||  ||||  ||||||||
Db       2 ATTTTCCCTGTTATCAGTTACTTATGGGGCCATTCGCTGCAATATACTGGCCATCCAGAT 61

Qy     717 CAAGTACGATGACTACAAGATTCGCCTTGGGCCACTAGAAGTCCTCTGCATCACCATCTG 776
           ||   | |||||    |  |||   ||   |||  ||||| || ||||  ||   || ||
Db      62 CAGCAATGATGATACTACCATTAAGCTACCGCCGATAGAATTCTTCTGTGTCGTGATGTG 121

Qy     777 GCGGACATTGGAGATCACTTCCCGCCTCCTGATTCTGGTGCTCTTCTCAGCCACTTTGAA 836
           |||    ||||||  |  |  ||  ||  |  |||  |||||    |  |||   ||  || ||||
Db     122 GCGTTTTTTGGAGGTTATCTCACGTGTAGTGACTCTGGCATTTTTCATTGCATCTCTGAA 181

Qy     837 ATTGAAGGCTGTGCCCTTCCTAGTGCTCAACTTCCTGATCATCCTCTTTGAGCCCTGGAT 896
           |  |||||    |  |||  |   |   |  |||  |   |   |      |  ||  |  || |||  |
Db     182 ACTGAAGAGCCTACCCGTTTTGTTAATCATATATTTTGTATCATTGTTGGCACCGTGGCT 241

Qy     897 TAAGTTCTGGAGAAGTGGTGCCCAGATGCCCAATAACATTGAGAAAAACTTCAGCCGGGT 956
             ||||  ||||  ||||||  ||  ||   |  ||    ||||  ||  ||  ||  |  ||    |||
Db     242 GGAGTTTTGGAAAAGTGGAGCTCATCTTCCTGGCAACAAAGAAAATAATTCCAATATGGT 301

Qy     957 CGGCACTCTGGTGGTCCTGATTTCAGTCACCATCCTCTATGCTGGCATCAACTTCTCTTG 1016
           ||  ||   |   ||  |  ||   |  |    ||||   |  ||  ||||||  ||||||||||||  ||
Db     302 GGGTACAGTACTGATGCTTTTCTTGATCACACTGCTATATGCTGCCATCAACTTCTCCTG 361

Qy    1017 CTGGTCAGCTTTGCAGTTGAGGTTGGCAGACAGAGATCTCGTCGACAAAGGGCAGAACTG 1076
           |||||||||  ||  |  ||  ||||  ||||     |  |  |  |||    |  ||||  ||
Db     362 CTGGTCAGCAGTGAAACTGCAGTTGTCAGATGACAAAATAATTGACGGGAGACAGAGGTG 421

Qy    1077 GGGACATATGGGCCTGCACTATAGTGTGAGGTTGGTAGAGAATGTGATCATGGTCTTGGT 1136
           |||  ||||     |||  |||||  ||  |   |||   ||||  ||||||||  |||  |  |||||
Db     422 GGGCCATAGAATCCTACACTACAGCTTTCAGTTTTTAGAAAATGTGATAATGATATTGGT 481

Qy    1137 TTTTAAGTTCTTTGGAGTGAAAGTGTTACTGAATTACTGTCATTCCTTGATTGCCTTGCA 1196
           ||||  ||||||||||  ||||    ||  |||||||  |||  |  ||  ||  ||||||  ||||
Db     482 ATTTAGGTTCTTTGGAGGGAAAACTTTGCTGAATTGTTGTGACTCATTAATTGCCGTGCA 541

Qy    1197 GCTCATTATTGCTTATCTGATTTCCATTGGCTTCATGCTCCTTTTCTTCCAGTACTTGCA 1256
           ||||||  ||     ||  ||  |  |||  ||||||  ||||||||  ||||  |||||  |||  |
Db     542 GCTCATCATAAGCTACCTATTGGCCACTGGCTTTATGCTCCTCTTCTATCAGTATTTGTA 601

Qy    1257 TCCATTGCGCTCA 1269
           ||||  ||  |||
Db     602 CCCATGGCAGTCA 614


RESULT 7
ABA31582
ID   ABA31582 standard; DNA; 668 BP.
XX
AC   ABA31582;
XX
DT   23-JAN-2002  (first entry)
XX
DE   Probe #10048 for gene expression analysis in human heart cell sample.
XX
KW   Human; gene expression; heart; microarray; vascular system; probe;
KW   cardiovascular disease; hypertension; cardiac arrhythmia;
KW   congenital heart disease; ss.
XX
OS   Homo sapiens.
XX
PN   WO200157274-A2.
XX
PD   09-AUG-2001.
XX
PF   30-JAN-2001; 2001WO-US00666.
XX
PR   04-FEB-2000; 2000US-0180312.
PR   26-MAY-2000; 2000US-0207456.
PR   30-JUN-2000; 2000US-0608408.
PR   03-AUG-2000; 2000US-0632366.
PR   21-SEP-2000; 2000US-0234687.
PR   27-SEP-2000; 2000US-0236359.
PR   04-OCT-2000; 2000GB-0024263.
XX
PA   (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI   Penn SG,  Hanzel DK,  Chen W,  Rank DR;
XX
DR   WPI; 2001-488899/53.
XX
PT   Single exon nucleic acid probes for analyzing gene expression in human
PT   hearts -
XX
PS   Claim 4; SEQ ID No 10048; 530pp; English.
XX
CC   The present invention relates to single exon nucleic acid probes for
CC   measuring human gene expression in a sample derived from human heart. The
CC   present sequence is one such probe. The probes may be used for
CC   predicting, measuring and displaying gene expression in samples derived
CC   from the human heart via microarrays. By measuring gene expression, the
CC   probes are useful for predicting, diagnosing, grading, staging,
CC   monitoring and prognosing diseases of the human heart and vascular system
CC   e.g. cardiovascular disease, hypertension, cardiac arrhythmias and
CC   congenital heart disease.
CC   Note: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 668 BP; 171 A; 136 C; 146 G; 215 T; 0 other;
```

```
  Query Match             19.6%;  Score 272.2;  DB 22;  Length 668;
  Best Local Similarity   65.3%;  Pred. No. 8.4e-73;
  Matches  400;  Conservative    0;  Mismatches  213;  Indels    0;  Gaps    0;

Qy        657 ATTTTCCCTGGTATCTGTCACCTATGGGGCCACCCTTTGCAATATGTTGGCTATCCAGAT 716
              |||||||||| |||| || || ||||||||||  |  |||  |||||||||  |||| ||||||||
Db          2 ATTTTCCCTGTTATCAGTTACTTATGGGGCCATTCGCTGCAATATACTGGCCATCCAGAT 61

Qy        717 CAAGTACGATGACTACAAGATTCGCCTTGGGCCACTAGAAGTCCTCTGCATCACCATCTG 776
              ||   | |||||    |  |||   ||   |||  ||||| || ||||  ||   || ||
Db         62 CAGCAATGATGATACTACCATTAAGCTACCGCCGATAGAATTCTTCTGTGTCGTGATGTG 121

Qy        777 GCGGACATTGGAGATCACTTCCCGCCTCCTGATTCTGGTGCTCTTCTCAGCCACTTTGAA 836
              |||    |||||| | |  || ||  |  ||| |||||   | |||   ||  || ||||
Db        122 GCGTTTTTTGGAGGTTATCTCACGTGTAGTGACTCTGGCATTTTTCATTGCATCTCTGAA 181

Qy        837 ATTGAAGGCTGTGCCCTTCCTAGTGCTCAACTTCCTGATCATCCTCTTTGAGCCCTGGAT 896
              | |||||    | ||| |  |  |  |||  |   |  |     | || |  || ||| |
Db        182 ACTGAAGAGCCTACCCGTTTTGTTAATCATATATTTTGTATCATTGTTGGCACCGTGGCT 241

Qy        897 TAAGTTCTGGAGAAGTGGTGCCCAGATGCCCAATAACATTGAGAAAAACTTCAGCCGGGT 956
                |||| ||||| |||||| || ||  | ||    ||||  || || || | ||    |||
Db        242 GGAGTTTTGGAAAAGTGGAGCTCATCTTCCTGGCAACAAAGAAAATAATTCCAATATGGT 301

Qy        957 CGGCACTCTGGTGGTCCTGATTTCAGTCACCATCCTCTATGCTGGCATCAACTTCTCTTG 1016
               || ||  |  || | ||  | |   ||||  | || ||||||| |||||||||||||| ||
Db        302 GGGTACAGTACTGATGCTTTTCTTGATCACACTGCTATATGCTGCCATCAACTTCTCCTG 361

Qy       1017 CTGGTCAGCTTTGCAGTTGAGGTTGGCAGACAGAGATCTCGTCGACAAAGGGCAGAACTG 1076
              |||||||||  || |  ||  |||| ||||     |  |  | |||    | ||||  ||
Db        362 CTGGTCAGCAGTGAAACTGCAGTTGTCAGATGACAAAATAATTGACGGGAGACAGAGGTG 421

Qy       1077 GGGACATATGGGCCTGCACTATAGTGTGAGGTTGGTAGAGAATGTGATCATGGTCTTGGT 1136
              ||| ||||    ||| |||| | ||  |   |||     | |||||||| ||| | |||||
Db        422 GGGCCATAGAATCCTACACTACAGCTTTCAGTTTTAGAAAATGTGATAATGATATTGGT 481

Qy       1137 TTTTAAGTTCTTTGGAGTGAAAGTGTTACTGAATTACTGTCATTCCTTGATTGCCTTGCA 1196
               |||| ||||||||||| ||||   || ||||||||  ||| | || || ||||||| ||||
Db        482 ATTTAGGTTCTTTGGAGGGAAAACTTTGCTGAATTGTTGTGACTCATTAATTGCCGTGCA 541

Qy       1197 GCTCATTATTGCTTATCTGATTTCCATTGGCTTCATGCTCCTTTTCTTCCAGTACTTGCA 1256
              |||||| ||    || ||  |  ||| |||||| |||||||| || ||||  ||||| ||| |
Db        542 GCTCATCATAAGCTACCTATTGGCCACTGGCTTTATGCTCCTCTTCTATCAGTATTTGTA 601

Qy       1257 TCCATTGCGCTCA 1269
               |||| ||  |||
Db        602 CCCATGGCAGTCA 614

RESULT 8
AAK12903
ID   AAK12903 standard; DNA; 668 BP.
XX
AC   AAK12903;
XX
DT   05-NOV-2001  (first entry)
XX
DE   Human brain expressed single exon probe SEQ ID NO: 12894.
XX
KW   Human; brain expressed exon; gene expression analysis; probe;
KW   microarray; Alzheimer's disease; multiple sclerosis; schizophrenia;
KW   epilepsy; cancer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200157275-A2.
XX
PD   09-AUG-2001.
XX
PF   30-JAN-2001; 2001WO-US00667.
XX
PR   04-FEB-2000; 2000US-0180312.
PR   26-MAY-2000; 2000US-0207456.
PR   30-JUN-2000; 2000US-0608408.
PR   03-AUG-2000; 2000US-0632366.
PR   21-SEP-2000; 2000US-0234687.
PR   27-SEP-2000; 2000US-0236359.
PR   04-OCT-2000; 2000GB-0024263.
XX
PA   (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI   Penn SG,  Hanzel DK,  Chen W,  Rank DR;
XX
DR   WPI; 2001-483446/52.
XX
PT   Single exon nucleic acid probes for analyzing gene expression in human
PT   brains -
XX
PS   Example 4; SEQ ID NO: 12894; 650pp + Sequence Listing; English.
XX
CC   The present invention provides a number of single exon nucleic acid
CC   probes which are derived from genomic sequences expressed in the human
CC   brain. They can be used to measure gene expression in brain cell samples,
CC   which may enable the diagnosis and improved treatment of nervous system
CC   diseases such as Alzheimer's disease, multiple sclerosis, schizophrenia,
CC   epilepsy and cancers. The present sequence is one of the probes of the
CC   invention.
XX
SQ   Sequence 668 BP; 171 A; 136 C; 146 G; 215 T; 0 other;

  Query Match             19.6%;  Score 272.2;  DB 22;  Length 668;
  Best Local Similarity   65.3%;  Pred. No. 8.4e-73;
  Matches  400;  Conservative    0;  Mismatches  213;  Indels    0;  Gaps    0;

Qy        657 ATTTTCCCTGGTATCTGTCACCTATGGGGCCACCCTTTGCAATATGTTGGCTATCCAGAT 716
              |||||||||| |||| || || ||||||||||  |  |||  |||||||||  |||| ||||||||
Db          2 ATTTTCCCTGTTATCAGTTACTTATGGGGCCATTCGCTGCAATATACTGGCCATCCAGAT 61

Qy        717 CAAGTACGATGACTACAAGATTCGCCTTGGGCCACTAGAAGTCCTCTGCATCACCATCTG 776
              ||   | |||||    |  |||   ||   |||  ||||| || ||||  ||   || ||
Db         62 CAGCAATGATGATACTACCATTAAGCTACCGCCGATAGAATTCTTCTGTGTCGTGATGTG 121

Qy        777 GCGGACATTGGAGATCACTTCCCGCCTCCTGATTCTGGTGCTCTTCTCAGCCACTTTGAA 836
              |||    |||||| | |  || ||  |  ||| |||||   | |||   ||  || ||||
Db        122 GCGTTTTTTGGAGGTTATCTCACGTGTAGTGACTCTGGCATTTTTCATTGCATCTCTGAA 181

Qy        837 ATTGAAGGCTGTGCCCTTCCTAGTGCTCAACTTCCTGATCATCCTCTTTGAGCCCTGGAT 896
              | |||||    | ||| |  |  |  |||  |   |  |     | || |  || ||| |
Db        182 ACTGAAGAGCCTACCCGTTTTGTTAATCATATATTTTGTATCATTGTTGGCACCGTGGCT 241

Qy        897 TAAGTTCTGGAGAAGTGGTGCCCAGATGCCCAATAACATTGAGAAAAACTTCAGCCGGGT 956
                |||| ||||| |||||| || ||  | ||    ||||  || || || | ||    |||
Db        242 GGAGTTTTGGAAAAGTGGAGCTCATCTTCCTGGCAACAAAGAAAATAATTCCAATATGGT 301

Qy        957 CGGCACTCTGGTGGTCCTGATTTCAGTCACCATCCTCTATGCTGGCATCAACTTCTCTTG 1016
               || ||  |  || | ||  | |   ||||  | || ||||||| |||||||||||||| ||
Db        302 GGGTACAGTACTGATGCTTTTCTTGATCACACTGCTATATGCTGCCATCAACTTCTCCTG 361

Qy       1017 CTGGTCAGCTTTGCAGTTGAGGTTGGCAGACAGAGATCTCGTCGACAAAGGGCAGAACTG 1076
              |||||||||  || |  ||  |||| ||||     |  |  | |||    | ||||  ||
Db        362 CTGGTCAGCAGTGAAACTGCAGTTGTCAGATGACAAAATAATTGACGGGAGACAGAGGTG 421

Qy       1077 GGGACATATGGGCCTGCACTATAGTGTGAGGTTGGTAGAGAATGTGATCATGGTCTTGGT 1136
              ||| ||||    ||| |||| | ||  |   |||     | |||||||| ||| | |||||
Db        422 GGGCCATAGAATCCTACACTACAGCTTTCAGTTTTAGAAAATGTGATAATGATATTGGT 481

Qy       1137 TTTTAAGTTCTTTGGAGTGAAAGTGTTACTGAATTACTGTCATTCCTTGATTGCCTTGCA 1196
               |||| ||||||||||| ||||   || ||||||||  ||| | || || ||||||| ||||
Db        482 ATTTAGGTTCTTTGGAGGGAAAACTTTGCTGAATTGTTGTGACTCATTAATTGCCGTGCA 541

Qy       1197 GCTCATTATTGCTTATCTGATTTCCATTGGCTTCATGCTCCTTTTCTTCCAGTACTTGCA 1256
              |||||| ||    || ||  |  ||| |||||| |||||||| || ||||  ||||| ||| |
Db        542 GCTCATCATAAGCTACCTATTGGCCACTGGCTTTATGCTCCTCTTCTATCAGTATTTGTA 601

Qy       1257 TCCATTGCGCTCA 1269
               |||| ||  |||
```

```
Db    602 CCCATGGCAGTCA 614


RESULT 9
AAK38630
ID   AAK38630 standard; DNA; 668 BP.
XX
AC   AAK38630;
XX
DT   06-NOV-2001  (first entry)
XX
DE   Human bone marrow expressed single exon probe SEQ ID NO: 13187.
XX
KW   Human; bone marrow expressed exon; gene expression analysis; probe;
KW   microarray; cancer; leukaemia; lymphoma; myeloma; ss.
XX
OS   Homo sapiens.
XX
PN   WO200157276-A2.
XX
PD   09-AUG-2001.
XX
PF   30-JAN-2001; 2001WO-US00668.
XX
PR   04-FEB-2000; 2000US-0180312.
PR   26-MAY-2000; 2000US-0207456.
PR   30-JUN-2000; 2000US-0608408.
PR   03-AUG-2000; 2000US-0632366.
PR   21-SEP-2000; 2000US-0234687.
PR   27-SEP-2000; 2000US-0236359.
PR   04-OCT-2000; 2000GB-0024263.
XX
PA   (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI   Penn SG,  Hanzel DK,  Chen W,  Rank DR;
XX
DR   WPI; 2001-488900/53.
XX
PT   Human genome-derived single exon nucleic acid probes useful for
PT   analyzing gene expression in human bone marrow -
XX
PS   Example 4; SEQ ID NO: 13187; 658pp + Sequence Listing; English.
XX
CC   The present invention provides a number of single exon nucleic acid
CC   probes which are derived from genomic sequences expressed in the human
CC   bone marrow. They can be used to measure gene expression in bone marrow
CC   samples, which may enable the improved diagnosis and treatment of cancers
CC   such as lymphoma, leukaemia and myeloma. The present sequence is one of
CC   the probes of the invention.
XX
SQ   Sequence 668 BP; 171 A; 136 C; 146 G; 215 T; 0 other;

  Query Match             19.6%;  Score 272.2;  DB 22;  Length 668;
  Best Local Similarity   65.3%;  Pred. No. 8.4e-73;
  Matches  400;  Conservative    0;  Mismatches  213;  Indels    0;  Gaps    0;

Qy    657 ATTTTCCCTGGTATCTGTCACCTATGGGGCCACCCTTTGCAATATGTTGGCTATCCAGAT 716
          |||||||||| |||| || || |||||||||| |  ||||||||  |||| ||||||||
Db      2 ATTTTCCCTGTTATCAGTTACTTATGGGGCCATTCGCTGCAATATACTGGCCATCCAGAT 61

Qy    717 CAAGTACGATGACTACAAGATTCGCCTTGGGCCACTAGAAGTCCTCTGCATCACCATCTG 776
          ||   | |||||    |  |||   ||   |||  ||||| || ||||  ||   || ||
Db     62 CAGCAATGATGATACTACCATTAAGCTACCGCCGATAGAATTCTTCTGTGTCGTGATGTG 121

Qy    777 GCGGACATTGGAGATCACTTCCCGCCTCCTGATTCTGGTGCTCTTCTCAGCCACTTTGAA 836
          |||    |||||| | |  || ||  |  ||| |||||   | |||   ||  || ||||
Db    122 GCGTTTTTTGGAGGTTATCTCACGTGTAGTGACTCTGGCATTTTTCATTGCATCTCTGAA 181

Qy    837 ATTGAAGGCTGTGCCCTTCCTAGTGCTCAACTTCCTGATCATCCTCTTTGAGCCCTGGAT 896
          | |||||    | ||| .  |  |  |||  |   |  |     | || |  || ||| |
Db    182 ACTGAAGAGCCTACCCGTTTTGTTAATCATATATTTTGTATCATTGTTGGCACCGTGGCT 241

Qy    897 TAAGTTCTGGAGAAGTGGTGCCCAGATGCCCAATAACATTGAGAAAAACTTCAGCCGGGT 956
          |||| |||| |||||| || ||  | ||    ||||  || || || | ||    |||
Db    242 GGAGTTTTGGAAAAGTGGAGCTCATCTTCCTGGCAACAAAGAAAATAATTCCAATATGGT 301

Qy    957 CGGCACTCTGGTGGTCCTGATTTCAGTCACCATCCTCTATGCTGGCATCAACTTCTCTTG 1016
          || ||  |  || | ||  | |   ||||  | || ||||||| ||||||||||| ||
Db    302 GGGTACAGTACTGATGCTTTTCTTGATCACACTGCTATATGCTGCCATCAACTTCTCCTG 361

Qy   1017 CTGGTCAGCTTTGCAGTTGAGGTTGGCAGACAGAGATCTCGTCGACAAAGGGCAGAACTG 1076
          |||||||||  || |  ||  |||| ||||      |  |  | |||    | ||||  ||
Db    362 CTGGTCAGCAGTGAAACTGCAGTTGTCAGATGACAAAATAATTGACGGGAGACAGAGGTG 421

Qy   1077 GGGACATATGGGCCTGCACTATAGTGTGAGGTTGGTAGAGAATGTGATCATGGTCTTGGT 1136
          ||| ||||    ||| ||||| ||  |   |||  |||| |||||||| ||| | |||||
Db    422 GGGCCATAGAATCCTACACTACAGCTTTCAGTTTTTAGAAAATGTGATAATGATATTGGT 481

Qy   1137 TTTTAAGTTCTTTGGAGTGAAAGTGTTACTGAATTACTGTCATTCCTTGATTGCCTTGCA 1196
          |||| |||||||||||| ||||   || |||||||  ||| | || || |||||| ||||
Db    482 ATTTAGGTTCTTTGGAGGGAAAACTTTGCTGAATTGTTGTGACTCATTAATTGCCGTGCA 541

Qy   1197 GCTCATTATTGCTTATCTGATTTCCATTGGCTTCATGCTCCTTTTCTTCCAGTACTTGCA 1256
          ||||||  ||    || ||  |  ||| |||||| |||||||| ||||  |||||  ||| |
Db    542 GCTCATCATAAGCTACCTATTGGCCACTGGCTTTATGCTCCTCTTCTATCAGTATTTGTA 601

Qy   1257 TCCATTGCGCTCA 1269
          |||| ||  |||
Db    602 CCCATGGCAGTCA 614


RESULT 10
AAI19430
ID   AAI19430 standard; DNA; 668 BP.
XX
AC   AAI19430;
XX
DT   12-OCT-2001  (first entry)
XX
DE   Probe #9363 for gene expression analysis in human cervical cell sample.
XX
KW   Probe; human; microarray; gene expression; cervical epithelial cell;
KW   cervical cancer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200157278-A2.
XX
PD   09-AUG-2001.
XX
PF   30-JAN-2001; 2001WO-US00670.
XX
PR   04-FEB-2000; 2000US-0180312.
PR   26-MAY-2000; 2000US-0207456.
PR   30-JUN-2000; 2000US-0608408.
PR   03-AUG-2000; 2000US-0632366.
PR   21-SEP-2000; 2000US-0234687.
PR   27-SEP-2000; 2000US-0236359.
PR   04-OCT-2000; 2000GB-0024263.
XX
PA   (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI   Penn SG,  Hanzel DK,  Chen W,  Rank DR;
XX
DR   WPI; 2001-488901/53.
XX
PT   Human genome-derived single exon nucleic acid probes useful for
PT   analyzing gene expression in human cervical epithelial cells -
XX
PS   Claim 25; SEQ ID No 9363; 487pp; English.
XX
CC   The present invention relates to human single exon nucleic acid probes
CC   (SENP). The present sequence is one such probe. The SENPs are derived
CC   from human HeLa cells. The SENPs can be used to produce a single exon
CC   microarray, which can be used for measuring human gene expression in a
CC   sample derived from human cervical epithelial cells. By measuring gene
```

CC expression, the probes are therefore useful in grading and/or staging
CC of diseases of the cervix, notably cervical cancer.
CC Note: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 668 BP; 171 A; 136 C; 146 G; 215 T; 0 other;

Query Match 19.6%; Score 272.2; DB 22; Length 668;
Best Local Similarity 65.3%; Pred. No. 8.4e-73;
Matches 400; Conservative 0; Mismatches 213; Indels 0; Gaps 0;

Qy 657 ATTTTCCCTGGTATCTGTCACCTATGGGGCCACCCTTTGCAATATGTTGGCTATCCAGAT 716
Db 2 ATTTTCCCTGTTATCAGTTACTTATGGGGCCATTCGCTGCAATATACTGGCCATCCAGAT 61

Qy 717 CAAGTACGATGACTACAAGATTCGCCTTGGGCCACTAGAAGTCCTCTGCATCACCATCTG 776
Db 62 CAGCAATGATGATACTACCATTAAGCTACCGCCGATAGAATTCTTCTGTGTCGTGATGTG 121

Qy 777 GCGGACATTGGAGATCACTTCCCGCCTCCTGATTCTGGTGCTCTTCTCAGCCACTTTGAA 836
Db 122 GCGTTTTTTGGAGGTTATCTCACGTGTAGTGACTCTGGCATTTTTCATTGCATCTCTGAA 181

Qy 837 ATTGAAGGCTGTGCCCTTCCTAGTGCTCAACTTCCTGATCATCCTCTTTGAGCCCTGGAT 896
Db 182 ACTGAAGAGCCTACCCGTTTTGTTAATCATATATTTTGTATCATTGTTGGCACCGTGGCT 241

Qy 897 TAAGTTCTGGAGAAGTGGTGCCCAGATGCCCAATAACATTGAGAAAAACTTCAGCCGGGT 956
Db 242 GGAGTTTTGGAAAAGTGGAGCTCATCTTCCTGGCAACAAAGAAAATAATTCCAATATGGT 301

Qy 957 CGGCACTCTGGTGGTCCTGATTTCAGTCACCATCCTCTATGCTGGCATCAACTTCTCTTG 1016
Db 302 GGGTACAGTACTGATGCTTTTCTTGATCACACTGCTATATGCTGCCATCAACTTCTCCTG 361

Qy 1017 CTGGTCAGCTTTGCAGTTGAGGTTGGCAGACAGAGATCTCGTCGACAAAGGGCAGAACTG 1076
Db 362 CTGGTCAGCAGTGAAACTGCAGTTGTCAGATGACAAAATAATTGACGGGAGACAGAGGTG 421

Qy 1077 GGGACATATGGGCCTGCACTATAGTGTGAGGTTGGTAGAGAATGTGATCATGGTCTTGGT 1136
Db 422 GGGCCATAGAATCCTACACTACAGCTTTCAGTTTTTAGAAAATGTGATAATGATATTGGT 481

Qy 1137 TTTTAAGTTCTTTGGAGTGAAAGTGTTACTGAATTACTGTCATTCCTTGATTGCCTTGCA 1196
Db 482 ATTTAGGTTCTTTGGAGGGAAAACTTTGCTGAATTGTTGTGACTCATTAATTGCCGTGCA 541

Qy 1197 GCTCATTATTGCTTATCTGATTTCCATTGGCTTCATGCTCCTTTTCTTCCAGTACTTGCA 1256
Db 542 GCTCATCATAAGCTACCTATTGGCCACTGGCTTTATGCTCCTCTTCTATCAGTATTTGTA 601

Qy 1257 TCCATTGCGCTCA 1269
Db 602 CCCATGGCAGTCA 614

RESULT 11
AAI44621
ID AAI44621 standard; DNA; 668 BP.
XX
AC AAI44621;
XX
DT 17-OCT-2001 (first entry)
XX
DE Probe #13307 used to measure gene expression in human placenta sample.
XX
KW Probe; microarray; human; placenta; antenatal diagnosis;
KW genetic disorder; ss.
XX
OS Homo sapiens.
XX
PN WO200157272-A2.

XX
PD 09-AUG-2001.
XX
PF 30-JAN-2001; 2001WO-US00663.
XX
PR 04-FEB-2000; 2000US-0180312.
PR 26-MAY-2000; 2000US-0207456.
PR 30-JUN-2000; 2000US-0608408.
PR 03-AUG-2000; 2000US-0632366.
PR 21-SEP-2000; 2000US-0234687.
PR 27-SEP-2000; 2000US-0236359.
PR 04-OCT-2000; 2000GB-0024263.
XX
PA (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI Penn SG, Hanzel DK, Chen W, Rank DR;
XX
DR WPI; 2001-488897/53.
XX
PT Human genome-derived single exon nucleic acid probes useful for
PT analyzing gene expression in human placenta -
XX
PS Claim 25; SEQ ID No 13307; 654pp; English.
XX
CC The present invention relates to single exon nucleic acid probes (SENP).
CC The present sequence is one such probe. The probes are useful for
CC producing a microarray for predicting, measuring and displaying gene
CC expression in samples derived from human placenta. The probes are useful
CC for antenatal diagnosis of human genetic disorders.
XX
SQ Sequence 668 BP; 171 A; 136 C; 146 G; 215 T; 0 other;

Query Match 19.6%; Score 272.2; DB 22; Length 668;
Best Local Similarity 65.3%; Pred. No. 8.4e-73;
Matches 400; Conservative 0; Mismatches 213; Indels 0; Gaps 0;

Qy 657 ATTTTCCCTGGTATCTGTCACCTATGGGGCCACCCTTTGCAATATGTTGGCTATCCAGAT 716
Db 2 ATTTTCCCTGTTATCAGTTACTTATGGGGCCATTCGCTGCAATATACTGGCCATCCAGAT 61

Qy 717 CAAGTACGATGACTACAAGATTCGCCTTGGGCCACTAGAAGTCCTCTGCATCACCATCTG 776
Db 62 CAGCAATGATGATACTACCATTAAGCTACCGCCGATAGAATTCTTCTGTGTCGTGATGTG 121

Qy 777 GCGGACATTGGAGATCACTTCCCGCCTCCTGATTCTGGTGCTCTTCTCAGCCACTTTGAA 836
Db 122 GCGTTTTTTGGAGGTTATCTCACGTGTAGTGACTCTGGCATTTTTCATTGCATCTCTGAA 181

Qy 837 ATTGAAGGCTGTGCCCTTCCTAGTGCTCAACTTCCTGATCATCCTCTTTGAGCCCTGGAT 896
Db 182 ACTGAAGAGCCTACCCGTTTTGTTAATCATATATTTTGTATCATTGTTGGCACCGTGGCT 241

Qy 897 TAAGTTCTGGAGAAGTGGTGCCCAGATGCCCAATAACATTGAGAAAAACTTCAGCCGGGT 956
Db 242 GGAGTTTTGGAAAAGTGGAGCTCATCTTCCTGGCAACAAAGAAAATAATTCCAATATGGT 301

Qy 957 CGGCACTCTGGTGGTCCTGATTTCAGTCACCATCCTCTATGCTGGCATCAACTTCTCTTG 1016
Db 302 GGGTACAGTACTGATGCTTTTCTTGATCACACTGCTATATGCTGCCATCAACTTCTCCTG 361

Qy 1017 CTGGTCAGCTTTGCAGTTGAGGTTGGCAGACAGAGATCTCGTCGACAAAGGGCAGAACTG 1076
Db 362 CTGGTCAGCAGTGAAACTGCAGTTGTCAGATGACAAAATAATTGACGGGAGACAGAGGTG 421

Qy 1077 GGGACATATGGGCCTGCACTATAGTGTGAGGTTGGTAGAGAATGTGATCATGGTCTTGGT 1136
Db 422 GGGCCATAGAATCCTACACTACAGCTTTCAGTTTTTAGAAAATGTGATAATGATATTGGT 481

Qy 1137 TTTTAAGTTCTTTGGAGTGAAAGTGTTACTGAATTACTGTCATTCCTTGATTGCCTTGCA 1196
Db 482 ATTTAGGTTCTTTGGAGGGAAAACTTTGCTGAATTGTTGTGACTCATTAATTGCCGTGCA 541

Qy 1197 GCTCATTATTGCTTATCTGATTTCCATTGGCTTCATGCTCCTTTTCTTCCAGTACTTGCA 1256

```
          |||||| ||    || ||  |  ||| |||||| |||||||| ||||  ||||| ||| |
Db    542 GCTCATCATAAGCTACCTATTGGCCACTGGCTTTATGCTCCTCTTCTATCAGTATTTGTA 601

Qy   1257 TCCATTGCGCTCA 1269
          |||| ||  |||
Db    602 CCCATGGCAGTCA 614


RESULT 12
AAI05155
ID   AAI05155 standard; DNA; 668 BP.
XX
AC   AAI05155;
XX
DT   09-OCT-2001  (first entry)
XX
DE   Probe #5146 used to measure gene expression in human breast sample.
XX
KW   Probe; human; breast disease; breast cancer; development disorder; ss;
KW   inflammatory disease; proliferative breast disease; non-carcinoma tumour.
XX
OS   Homo sapiens.
XX
PN   WO200157270-A2.
XX
PD   09-AUG-2001.
XX
PF   29-JAN-2001; 2001WO-US00661.
XX
PR   04-FEB-2000; 2000US-0180312.
PR   26-MAY-2000; 2000US-0207456.
PR   30-JUN-2000; 2000US-0608408.
PR   03-AUG-2000; 2000US-0632366.
PR   21-SEP-2000; 2000US-0234687.
PR   27-SEP-2000; 2000US-0236359.
PR   04-OCT-2000; 2000GB-0024263.
XX
PA   (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI   Penn SG,  Hanzel DK,  Chen W,  Rank DR;
XX
DR   WPI; 2001-476286/51.
XX
PT   Novel single exon nucleic acid probe used to measuring gene expression
PT   in a human breast -
XX
PS   Claim 25; SEQ ID No 5146; 322pp; English.
XX
CC   The present invention relates to novel single exon nucleic acid probes.
CC   The present sequence is one such probe. The probes are useful for
CC   measuring human gene expression in a human breast sample, where the probe
CC   hybridises at high stringency to a nucleic acid expressed in the human
CC   breast. The probes are useful for predicting, diagnosing, grading,
CC   staging, monitoring and prognosing diseases of the human breast,
CC   particularly those diseases with polygenic aetiology. The diseases
CC   include: breast cancer, disorders of development, inflammatory diseases
CC   of the breast, fibrocystic changes, proliferative breast disease and
CC   non-carcinoma tumours.
CC   Note: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 668 BP; 171 A; 136 C; 146 G; 215 T; 0 other;

  Query Match             19.6%;  Score 272.2;  DB 22;  Length 668;
  Best Local Similarity   65.3%;  Pred. No. 8.4e-73;
  Matches  400;  Conservative    0;  Mismatches  213;  Indels    0;  Gaps    0;

Qy    657 ATTTTCCCTGGTATCTGTCACCTATGGGGCCACCCTTTGCAATATGTTGGCTATCCAGAT 716
          |||||||||| |||| || || |||||||||| |  ||||||||  |||| ||||||||
Db      2 ATTTTCCCTGTTATCAGTTACTTATGGGGCCATTCGCTGCAATATACTGGCCATCCAGAT 61

Qy    717 CAAGTACGATGACTACAAGATTCGCCTTGGGCCACTAGAAGTCCTCTGCATCACCATCTG 776
          ||  | |||||    |  |||   ||   |||  ||||| || ||||  ||   || ||
Db     62 CAGCAATGATGATACTACCATTAAGCTACCGCCGATAGAATTCTTCTGTGTCGTGATGTG 121

Qy    777 GCGGACATTGGAGATCACTTCCCGCCTCCTGATTCTGGTGCTCTTCTCAGCCACTTTGAA 836
          |||    |||||| | |  || ||  | ||| |||||   | |||   ||  || ||||
Db    122 GCGTTTTTTGGAGGTTATCTCACGTGTAGTGACTCTGGCATTTTTCATTGCATCTCTGAA 181

Qy    837 ATTGAAGGCTGTGCCCTTCCTAGTGCTCAACTTCCTGATCATCCTCTTTGAGCCCTGGAT 896
          | |||||    | ||| |  |  |  ||| |   |  |     | || |  || ||| |
Db    182 ACTGAAGAGCCTACCCGTTTTGTTAATCATATATTTTGTATCATTGTTGGCACCGTGGCT 241

Qy    897 TAAGTTCTGGAGAAGTGGTGCCCAGATGCCCAATAACATTGAGAAAAACTTCAGCCGGGT 956
            |||| |||| |||||| || ||  | ||    ||||  || || || | ||    |||
Db    242 GGAGTTTTGGAAAAGTGGAGCTCATCTTCCTGGCAACAAAGAAAATAATTCCAATATGGT 301

Qy    957 CGGCACTCTGGTGGTCCTGATTTCAGTCACCATCCTCTATGCTGGCATCAACTTCTCTTG 1016
          || ||  |  || | ||  | |   |||  | || |||||| ||||||||||| ||
Db    302 GGGTACAGTACTGATGCTTTTCTTGATCACACTGCTATATGCTGCCATCAACTTCTCCTG 361

Qy   1017 CTGGTCAGCTTTGCAGTTGAGGTTGGCAGACAGAGATCTCGTCGACAAAGGGCAGAACTG 1076
          |||||||| || |  ||  |||| ||||     |  | | |||    | ||||  ||
Db    362 CTGGTCAGCAGTGAAACTGCAGTTGTCAGATGACAAAATAATTGACGGGAGACAGAGGTG 421

Qy   1077 GGGACATATGGGCCTGCACTATAGTGTGAGGTTGGTAGAGAATGTGATCATGGTCTTGGT 1136
          ||| ||||    ||| ||||| || |   |||  |||| |||||||| ||| | |||||
Db    422 GGGCCATAGAATCCTACACTACAGCTTTCAGTTTTTAGAAAATGTGATAATGATATTGGT 481

Qy   1137 TTTTAAGTTCTTTGGAGTGAAAGTGTTACTGAATTACTGTCATTCCTTGATTGCCTTGCA 1196
          |||| ||||||||||| ||||   || |||||||  ||| | || || |||||| ||||
Db    482 ATTTAGGTTCTTTGGAGGGAAAACTTTGCTGAATTGTTGTGACTCATTAATTGCCGTGCA 541

Qy   1197 GCTCATTATTGCTTATCTGATTTCCATTGGCTTCATGCTCCTTTTCTTCCAGTACTTGCA 1256
          |||||| ||    || ||  |  ||| |||||| |||||||| ||||  |||| ||| |
Db    542 GCTCATCATAAGCTACCTATTGGCCACTGGCTTTATGCTCCTCTTCTATCAGTATTTGTA 601

Qy   1257 TCCATTGCGCTCA 1269
          |||| ||  |||
Db    602 CCCATGGCAGTCA 614


RESULT 13
ABS12699
ID   ABS12699 standard; DNA; 668 BP.
XX
AC   ABS12699;
XX
DT   19-AUG-2002  (first entry)
XX
DE   Human genome-derived single exon probe ORF from lung SEQ ID No 12690.
XX
KW   Human; ds; single exon probe; asthma; lung cancer; COPD; ILD;
KW   chronic obstructive pulmonary disease; interstitial lung disease;
KW   familial idiopathic pulmonary fibrosis; neurofibromatosis;
KW   tuberous sclerosis; Gaucher's disease; Niemann-Pick disease;
KW   Hermansky-Pudlak syndrome; sarcoidosis; pulmonary haemosiderosis;
KW   pulmonary histiocytosis; lymphangioleiomyomtosis; Karagener syndrome;
KW   pulmonary alveolar proteinosis; fibrocystic pulmonary dysplasia;
KW   primary ciliary dyskinesis; pulmonary hypertension;
KW   hyaline membrane disease; open reading frame; ORF.
XX
OS   Homo sapiens.
XX
PN   WO200186003-A2.
XX
PD   15-NOV-2001.
XX
PF   30-JAN-2001; 2001WO-US00665.
XX
PR   04-FEB-2000; 2000US-180312P.
PR   26-MAY-2000; 2000US-207456P.
PR   30-JUN-2000; 2000US-0608408.
PR   03-AUG-2000; 2000US-0632366.
PR   21-SEP-2000; 2000US-234687P.
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PR   27-SEP-2000; 2000US-236359P.
PR   04-OCT-2000; 2000GB-0024263.
XX
PA   (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI   Penn SG,  Hanzel DK,  Chen W,  Rank DR;
XX
DR   WPI; 2002-114183/15.
XX
PT   Spatially-addressable set of single exon nucleic acid probes, used to
PT   measure gene expression in human lung samples -
XX
PS   Claim 4; SEQ ID No 12690; 634pp; English.
XX
CC   The invention relates to a spatially-addressable set of single exon
CC   nucleic acid probes for measuring gene expression in a sample derived
CC   from human lung comprising single exon nucleic acid probes having one of
CC   12614 nucleic acid sequences mentioned in the specification, or their
CC   complements or the 12387 open reading frames derived from the 12614
CC   probes. Also included are a microarray comprising the novel set of
CC   probes; the novel set of probes which hybridise at high stringency to a
CC   nucleic acid expressed in the human lung; measuring gene expression in a
CC   sample derived from human lung, comprising (a) contacting the array with
CC   a collection of detectably labeled nucleic acids derived from human lung
CC   mRNA, and (b) measuring the label detectably bound to each probe of
CC   the array; identifying exons in a eukaryotic genome, comprising
CC   (a) algorithmically predicting at least one exon from genomic sequences
CC   of the eukaryote; and (b) detecting specific hybridisation of detectably
CC   labeled nucleic acids from eukaryote lung mRNA, to a single exon probe,
CC   having a fragment identical to the predicted exon, the probe is included
CC   in the above mentioned microarray; assigning exons to a single gene,
CC   comprising (a) identifying exons from genomic sequence by the method
CC   above and (b) measuring the expression of each of the exons in several
CC   tissues and/or cell types using hybridisation to a single exon
CC   microarrays having a probe with the exon, where a common pattern of
CC   expression of the exons in the tissues and/or cell types indicates that
CC   the exons should be assigned to a single gene; a peptide comprising one
CC   of 12011 sequences, mentioned in the specification, or encoded by the
CC   probes/open reading frames (ORF). The probes are used for gene
CC   expression analysis, and for identifying exons in a gene, particularly
CC   using human lung derived mRNA and for the study of lung diseases
CC   such as asthma, lung cancer, chronic obstructive pulmonary disease
CC   (COPD), interstitial lung disease (ILD), familial idiopathic pulmonary
CC   fibrosis, neurofibromatosis, tuberous sclerosis, Gaucher's disease,
CC   Niemann-Pick disease, Hermansky-Pudlak syndrome, sarcoidosis, pulmonary
CC   haemosiderosis, pulmonary histiocytosis, lymphangioleiomyomtosis,
CC   pulmonary alveolar proteinosis, Karagener syndrome, fibrocystic
CC   pulmonary dysplasia, primary ciliary dyskinesis, pulmonary hypertension
CC   and hyaline membrane disease. The present sequence is a single exon
CC   probe open reading frame of the invention.
CC   Note: The sequence data for this patent did not form part
CC   of the printed specification, but was obtained in electronic
CC   format directly from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 668 BP; 171 A; 136 C; 146 G; 215 T; 0 other;

  Query Match             19.6%;  Score 272.2;  DB 24;  Length 668;
  Best Local Similarity   65.3%;  Pred. No. 8.4e-73;
  Matches  400;  Conservative    0;  Mismatches  213;  Indels    0;  Gaps    0;

Qy     657 ATTTTCCCTGGTATCTGTCACCTATGGGGCCACCCTTTGCAATATGTTGGCTATCCAGAT 716
           |||||||||| |||| || || |||||||||| | ||||||||  |||| ||||||||
Db       2 ATTTTCCCTGTTATCAGTTACTTATGGGGCCATTCGCTGCAATATACTGGCCATCCAGAT 61

Qy     717 CAAGTACGATGACTACAAGATTCGCCTTGGGCCACTAGAAGTCCTCTGCATCACCATCTG 776
           ||   | |||||    |  |||   ||   |||  ||||| || ||||  ||   || ||
Db      62 CAGCAATGATGATACTACCATTAAGCTACCGCCGATAGAATTCTTCTGTGTCGTGATGTG 121

Qy     777 GCGGACATTGGAGATCACTTCCCGCCTCCTGATTCTGGTGCTCTTCTCAGCCACTTTGAA 836
           |||    |||||| | |  || ||  |  ||| |||||   | |||   ||  || ||||
Db     122 GCGTTTTTTGGAGGTTATCTCACGTGTAGTGACTCTGGCATTTTTCATTGCATCTCTGAA 181

Qy     837 ATTGAAGGCTGTGCCCTTCCTAGTGCTCAACTTCCTGATCATCCTCTTTGAGCCCTGGAT 896
           | |||||    | ||| |  |  |  |||  |   |  |      | || |  || ||| |
Db     182 ACTGAAGAGCCTACCCGTTTTGTTAATCATATATTTTGTATCATTGTTGGCACCGTGGCT 241

Qy     897 TAAGTTCTGGAGAAGTGGTGCCCAGATGCCCAATAACATTGAGAAAAACTTCAGCCGGGT 956
           ||||  |||| |||||| || ||  | ||     ||||  || || || | ||    |||
Db     242 GGAGTTTTGGAAAAGTGGAGCTCATCTTCCTGGCAACAAAGAAAATAATTCCAATATGGT 301

Qy     957 CGGCACTCTGGTGGTCCTGATTTCAGTCACCATCCTCTATGCTGGCATCAACTTCTCTTG 1016
           || ||  |  || | ||  | |   ||||  | || |||||||  ||||||||||| ||
Db     302 GGGTACAGTACTGATGCTTTTCTTGATCACACTGCTATATGCTGCCATCAACTTCTCCTG 361

Qy    1017 CTGGTCAGCTTTGCAGTTGAGGTTGGCAGACAGAGATCTCGTCGACAAAGGGCAGAACTG 1076
           |||||||||  || |  ||  |||| ||||      |  |  | |||    | ||||  ||
Db     362 CTGGTCAGCAGTGAAACTGCAGTTGTCAGATGACAAAATAATTGACGGGAGACAGAGGTG 421

Qy    1077 GGGACATATGGGCCTGCACTATAGTGTGAGGTTGGTAGAGAATGTGATCATGGTCTTGGT 1136
           |||  ||||    ||| ||||| ||  |   |||  |||| |||||||| ||| | |||||
Db     422 GGGCCATAGAATCCTACACTACAGCTTTCAGTTTTTAGAAAATGTGATAATGATATTGGT 481

Qy    1137 TTTTAAGTTCTTTGGAGTGAAAGTGTTACTGAATTACTGTCATTCCTTGATTGCCTTGCA 1196
           ||||  |||||||||||  ||||   ||  |||||||  |||  |  ||  ||  |||||  ||||
Db     482 ATTTAGGTTCTTTGGAGGGAAAACTTTGCTGAATTGTTGTGACTCATTAATTGCCGTGCA 541

Qy    1197 GCTCATTATTGCTTATCTGATTTCCATTGGCTTCATGCTCCTTTTCTTCCAGTACTTGCA 1256
           ||||||  ||    ||  ||  |  |||  ||||||  ||||||||  ||||  |||||  ||| |
Db     542 GCTCATCATAAGCTACCTATTGGCCACTGGCTTTATGCTCCTCTTCTATCAGTATTTGTA 601

Qy    1257 TCCATTGCGCTCA 1269
           ||||  ||  |||
Db     602 CCCATGGCAGTCA 614


RESULT 14
ABA51767
ID   ABA51767 standard; DNA; 471 BP.
XX
AC   ABA51767;
XX
DT   01-FEB-2002  (first entry)
XX
DE   Human foetal liver single exon nucleic acid probe #72.
XX
KW   Human; foetal liver; gene expression; single exon nucleic acid probe; ss.
XX
OS   Homo sapiens.
XX
PN   WO200157277-A2.
XX
PD   09-AUG-2001.
XX
PF   30-JAN-2001; 2001WO-US00669.
XX
PR   04-FEB-2000; 2000US-0180312.
PR   26-MAY-2000; 2000US-0207456.
PR   30-JUN-2000; 2000US-0608408.
PR   03-AUG-2000; 2000US-0632366.
PR   21-SEP-2000; 2000US-0234687.
PR   27-SEP-2000; 2000US-0236359.
PR   04-OCT-2000; 2000GB-0024263.
XX
PA   (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI   Penn SG,  Hanzel DK,  Chen W,  Rank DR;
XX
DR   WPI; 2001-483447/52.
XX
PT   Human genome-derived single exon nucleic acid probes useful for
PT   analyzing gene expression in human fetal liver -
XX
PS   Claim 1; SEQ ID NO 72; 639pp + sequence listing; English.
XX
CC   The invention relates to a single exon nucleic acid probe for
```

CC measuring human gene expression in a sample derived from human foetal
CC liver. The single exon nucleic acid probes may be used for predicting,
CC measuring and displaying gene expression in samples derived from human
CC fetal liver. The present sequence is a single exon nucleic acid
CC probe of the invention.
CC Note: The sequence data for this patent did not form part of the
CC printed specification, but was obtained in electronic format directly
CC from WIPO at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 471 BP; 117 A; 94 C; 104 G; 156 T; 0 other;

Query Match 12.7%; Score 176.8; DB 22; Length 471;
Best Local Similarity 61.9%; Pred. No. 1.3e-43;
Matches 280; Conservative 0; Mismatches 172; Indels 0; Gaps 0;

Qy 640 AGAGTTGTGCTAATGGTATTTTCCCTGGTATCTGTCACCTATGGGGCCACCCTTTGCAAT 699
Db 19 ATAGCATTGCTGATGACATTTTCCCTGTTATCAGTTACTTATGGGGCCATTCGCTGCAAT 78

Qy 700 ATGTTGGCTATCCAGATCAAGTACGATGACTACAAGATTCGCCTTGGGCCACTAGAAGTC 759
Db 79 ATACTGGCCATCCAGATCAGCAATGATGATACTACCATTAAGCTACCGCCGATAGAATTC 138

Qy 760 CTCTGCATCACCATCTGGCGGACATTGGAGATCACTTCCCGCCTCCTGATTCTGGTGCTC 819
Db 139 TTCTGTGTCGTGATGTGGCGTTTTTTGGAGGTTATCTCACGTGTAGTGACTCTGGCATTT 198

Qy 820 TTCTCAGCCACTTTGAAATTGAAGGCTGTGCCCTTCCTAGTGCTCAACTTCCTGATCATC 879
Db 199 TTCATTGCATCTCTGAAACTGAAGAGCCTACCCGTTTTGTTAATCATATATTTTGTATCA 258

Qy 880 CTCTTTGAGCCCTGGATTAAGTTCTGGAGAAGTGGTGCCCAGATGCCCAATAACATTGAG 939
Db 259 TTGTTGGCACCGTGGCTGGAGTTTTGGAAAAGTGGAGCTCATCTTCCTGGCAACAAAGAA 318

Qy 940 AAAAACTTCAGCCGGGTCGGCACTCTGGTGGTCCTGATTTCAGTCACCATCCTCTATGCT 999
Db 319 AATAATTCCAATATGGTGGGTACAGTACTGATGCTTTTCTTGATCACACTGCTATATGCT 378

Qy 1000 GGCATCAACTTCTCTTGCTGGTCAGCTTTGCAGTTGAGGTTGGCAGACAGAGATCTCGTC 1059
Db 379 GCCATCAACTTCTCCTGCTGGTCAGCAGTGAAACTGCAGTTGTCAGATGACAAAATAATT 438

Qy 1060 GACAAAGGGCAGAACTGGGGACATATGGGCCT 1091
Db 439 GACGGGAGACAGAGGTGGGGCCATAGAATCCT 470

RESULT 15
ABA21596
ID ABA21596 standard; DNA; 471 BP.
XX
AC ABA21596;
XX
DT 23-JAN-2002 (first entry)
XX
DE Probe #62 for gene expression analysis in human heart cell sample.
XX
KW Human; gene expression; heart; microarray; vascular system; probe;
KW cardiovascular disease; hypertension; cardiac arrhythmia;
KW congenital heart disease; ss.
XX
OS Homo sapiens.
XX
PN WO200157274-A2.
XX
PD 09-AUG-2001.
XX
PF 30-JAN-2001; 2001WO-US00666.
XX
PR 04-FEB-2000; 2000US-0180312.
PR 26-MAY-2000; 2000US-0207456.
PR 30-JUN-2000; 2000US-0608408.
PR 03-AUG-2000; 2000US-0632366.
PR 21-SEP-2000; 2000US-0234687.
PR 27-SEP-2000; 2000US-0236359.
PR 04-OCT-2000; 2000GB-0024263.
XX
PA (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI Penn SG, Hanzel DK, Chen W, Rank DR;
XX
DR WPI; 2001-488899/53.
XX
PT Single exon nucleic acid probes for analyzing gene expression in human
PT hearts -
XX
PS Claim 1; SEQ ID No 62; 530pp; English.
XX
CC The present invention relates to single exon nucleic acid probes for
CC measuring human gene expression in a sample derived from human heart. The
CC present sequence is one such probe. The probes may be used for
CC predicting, measuring and displaying gene expression in samples derived
CC from the human heart via microarrays. By measuring gene expression, the
CC probes are useful for predicting, diagnosing, grading, staging,
CC monitoring and prognosing diseases of the human heart and vascular system
CC e.g. cardiovascular disease, hypertension, cardiac arrhythmias and
CC congenital heart disease.
CC Note: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 471 BP; 117 A; 94 C; 104 G; 156 T; 0 other;

Query Match 12.7%; Score 176.8; DB 22; Length 471;
Best Local Similarity 61.9%; Pred. No. 1.3e-43;
Matches 280; Conservative 0; Mismatches 172; Indels 0; Gaps 0;

Qy 640 AGAGTTGTGCTAATGGTATTTTCCCTGGTATCTGTCACCTATGGGGCCACCCTTTGCAAT 699
Db 19 ATAGCATTGCTGATGACATTTTCCCTGTTATCAGTTACTTATGGGGCCATTCGCTGCAAT 78

Qy 700 ATGTTGGCTATCCAGATCAAGTACGATGACTACAAGATTCGCCTTGGGCCACTAGAAGTC 759
Db 79 ATACTGGCCATCCAGATCAGCAATGATGATACTACCATTAAGCTACCGCCGATAGAATTC 138

Qy 760 CTCTGCATCACCATCTGGCGGACATTGGAGATCACTTCCCGCCTCCTGATTCTGGTGCTC 819
Db 139 TTCTGTGTCGTGATGTGGCGTTTTTTGGAGGTTATCTCACGTGTAGTGACTCTGGCATTT 198

Qy 820 TTCTCAGCCACTTTGAAATTGAAGGCTGTGCCCTTCCTAGTGCTCAACTTCCTGATCATC 879
Db 199 TTCATTGCATCTCTGAAACTGAAGAGCCTACCCGTTTTGTTAATCATATATTTTGTATCA 258

Qy 880 CTCTTTGAGCCCTGGATTAAGTTCTGGAGAAGTGGTGCCCAGATGCCCAATAACATTGAG 939
Db 259 TTGTTGGCACCGTGGCTGGAGTTTTGGAAAAGTGGAGCTCATCTTCCTGGCAACAAAGAA 318

Qy 940 AAAAACTTCAGCCGGGTCGGCACTCTGGTGGTCCTGATTTCAGTCACCATCCTCTATGCT 999
Db 319 AATAATTCCAATATGGTGGGTACAGTACTGATGCTTTTCTTGATCACACTGCTATATGCT 378

Qy 1000 GGCATCAACTTCTCTTGCTGGTCAGCTTTGCAGTTGAGGTTGGCAGACAGAGATCTCGTC 1059
Db 379 GCCATCAACTTCTCCTGCTGGTCAGCAGTGAAACTGCAGTTGTCAGATGACAAAATAATT 438

Qy 1060 GACAAAGGGCAGAACTGGGGACATATGGGCCT 1091
Db 439 GACGGGAGACAGAGGTGGGGCCATAGAATCCT 470

Search completed: March 30, 2003, 03:16:52
Job time : 256.403 secs